

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED

DATE: 25-MAY-2016 TIME: 1500 HOURS

2. OPERATOR: Shell Offshore Inc.

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR
ON SITE AT TIME OF INCIDENT:

6. OPERATION:

4. LEASE: G17565

AREA: AC LATITUDE: 26.128903
BLOCK: 857 LONGITUDE: -94.897906

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER

5. PLATFORM: A(Perdido)

RIG NAME:

6. ACTIVITY: EXPLORATION(POE)
 DEVELOPMENT/PRODUCTION
(DOCD/POD)

8. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER _____

7. TYPE:

- HISTORIC INJURY
 - REQUIRED EVACUATION
 - LTA (1-3 days)
 - LTA (>3 days)
 - RW/JT (1-3 days)
 - RW/JT (>3 days)
 - Other Injury

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

- LWC HISTORIC BLOWOUT
- UNDERGROUND
 - SURFACE
 - DEVERTER
 - SURFACE EQUIPMENT FAILURE OR PROCEDURES

9. WATER DEPTH: 7835 FT.

10. DISTANCE FROM SHORE: 140 MI.

11. WIND DIRECTION:
SPEED: M.P.H.

12. CURRENT DIRECTION:
SPEED: M.P.H.

13. SEA STATE: FT.

COLLISION HISTORIC >\$25K <=\$25K

On May 27, 2016, AC 857 Shell Perdido Spar reported a pollution incident had occurred at approximately 1500 hours May 25, 2016. Lessee was bunkering Methanol from the M/V Claire Candies to the ABJ-2220 and ABJ-2230 Methanol storage tanks. Lessee's written procedures for methanol transfer the operators were using stated to fill the methanol tanks to 70% of tanks maximum capacity.

At approximately 62% level in the tanks, the filling of tanks seemed to flat line. The Blast Control Operator (BCO) called the M/V Claire Candies asking if they were still pumping. The Captain responded they were, and the BCO then requested Captain to speed up delivery rate. Approximately 25 minutes later the control room operators noticed a rise in the oil bucket of the ABH-2040 Open Drain Sump, and the operators immediately called for a shut-down of bunkering operations.

Crew initially assessed the methanol tanks had overflowed to the Open Drain Sump, where the methanol would have been pumped to the MBF-1080 LP Flare Scrubber. The initial assumption was that the sump system would be able to handle the flow, operate properly and prevent a pollution event. The initial calculations conducted on May 25th by the Lessee showed they had 100% containment with in the facilities process system.

The Lessee conducts an internal investigation of all events to ensure policies and procedures are adhered and to take corrective actions to adjust policies and procedures as needed. Lessee's internal investigation on May 27th revealed overflow rate from the methanol tanks to the open drain sump was greater than the sump pumps could handle, resulting in the discharge of methanol into offshore waters. Lessee's recalculations of the amount of methanol in the tanks, sump and in the LP flare scrubber compared to the amount pumped from M/V Claire Candies concluded approximately 46 barrels / 1,929 gallons of methanol was discharged into the Gulf of Mexico. Lessee notified National Response Center (NRC) and BSEE after this discovery. Lessee's further investigation revealed the procedure stated to fill the methanol tanks to 70% full which exceeded the correct 62% of actual total capacity of the tanks. The alarm and shut-downs for the tank levels had settings that matched the incorrect procedures. The operators failed to recognize the signs of an issue, and having the M/V Claire Candies speed up the pumping of the methanol led to an escalation of the event.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

1. Lessee's procedures stated to fill the Methanol tanks to 70%, which exceeded the tank capacity of 62%.
2. The alarm and shut-down for the tank levels had settings that matched the incorrect procedures.
3. Operators did not recognize the signs of an issue, which lead to escalation of the pollution event.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

Shell's leadership recently emphasized the importance of following procedures which led to an acceptance of the procedure in the system and did not allow for questioning of the procedure.

20. LIST THE ADDITIONAL INFORMATION:

Total Height of the tank is 21 feet.

The top 7 feet of the tank is not used or is a void space.
Methanol storage height is 14 feet.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

The Lake Jackson District has no recommendations to the regional office.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-110 (C) Procedures for filling Methanol tanks incorrect.

- BCO escalated the pollution event.

E-100 (W) Lessee discharged 46 barrels (1,929 gal) into Gulf of Mexico waters.

25. DATE OF ONSITE INVESTIGATION:

31-MAY-2016

26. ONSITE TEAM MEMBERS:

Edward Keown

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

John McCarroll

APPROVED

DATE: **20-JUL-2015**

POLLUTION ATTACHMENT

1. VOLUME: 46 BBL
2. TYPE OF HYDROCARBON RELEASED: OIL
 DIESEL
 CONDENSATE
 HYDRAULIC
 NATURAL GAS
 OTHER Methanol
3. SOURCE OF HYDROCARBON RELEASED: **AC 857 Shell Perdido Spar Open Drain Sump.**
4. WERE SAMPLES TAKEN? **NO**
5. WAS CLEANUP EQUIPMENT ACTIVATED? **NO**
- IF SO, TYPE: SKIMMER
 CONTAINMENT BOOM
 ABSORPTION EQUIPMENT
 DISPERSANTS
 OTHER _____
6. ESTIMATED RECOVERY: GAL BBL
7. RESPONSE TIME: HOURS
8. IS THE POLLUTION IN THE PROXIMITY OF AN ENVIRONMENTALLY SENSITIVE AREA (CLASS I)? **NO**
9. HAS REGION OIL SPILL TASK FORCE BEEN NOTIFIED? **NO**
10. CONTACTED SHORE: **NO** IF YES, WHERE:
11. WERE ANY LIVE ANIMALS OBSERVED NEAR: **NO**
12. WERE ANY OILED OR DEAD ANIMALS OBSERVED NEAR SPILL: **NO**